SYNOPSIS

Implications of preserving traditional wisdom towards sustainable livelihoods and natural resource management, in context to designing culturally relevant curriculum for children of the indigenous communities

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Preface

This thesis is a product of an immersive time post the pandemic, on how the author wants to be back in the classroom. It is a product of multiple rejections and moments of enlightenment, proving the universal grit to pursue what was paused a decade ago. The author thus thanks all the forces that made this degree possible in the pursuit of the universal truths, though multiple and grey.
This thesis hopes to reappropriate the rights of the marginalized populace of India of aboriginal descent. The thesis wouldn't complete without the NGOs and students that supported this cause to various extents possible.

List of Seminar Presentations

1. Tribal-linguistics in a place-centric, community-engaged schooling model for kids from tribal societies
National Conference on Tribal Transition in India: Issues, Challenges and the Road Ahead
Hidayatullah National Law University, Raipur

2. Intellectual Tradition amidst Tribals - redefining Indigenous Environmental Knowledge that favors Sustainable Livelihoods towards effective Community Conservation efforts
The Quest For Emancipation - Intellectual Traditions among the Dalits and Tribes in India
Department of History - Tetso College and Indian Council of Social Science Research

3. A comparative pedagogical approach to contextualizing tribal and suburban education in aspects of culture and nature - for children of Adivasi origins and migrant labor populace of South India.
The IP Santiago Memorial Conference
Seeking Cosmologies of Restorative Justice in the Anthropocene: Towards Planetary Futures in the Biocene
United Theological College, Bangalore

List of Publications

1. Art Therapy for the Healing of Tribal Kids with Special Needs - A Case of Multiple Intelligence in Learning Styles
Indian Journal of Psychology and Education
January, 2023, Vol. 13 No.1, pp 28-40

2. A Capabilities Framework that Ties Pedagogy of Tribal Learning to Sustainable Livelihood Outcomes amidst the Indigenous Communities
Anusandhan Anveshika, Vol.-XIII, July 2023, pp.15-22

Introduction

Tribal children have the means to learn from nature. They are even better at learning than the rural poor who continually face inaccess to basic amenities while migrating to towns for waged earnings. Yet their wisdom over generations has been dwindling in the face of landuse change and development of dams and plantations around the fringes of forests. It is thus key to protect this ancestral ecological knowledge and plug it back into their system of schooling. This builds resilience and entrepreneurship amongst tribal youth.

Ramesh C.M. (2008) dwells upon educational modalities for tribal children in India as theoretical and practical challenges are enlisted therein. [32] The main challenge on the field has been tapping into the potential of ecotourism. The premise of tourism in forests being undervalued by the lower-income to elite using it as a respite from urban and rural chaos. The environment is thus polluted and degrading with illicit use of plastics, consumption of drugs and alcohol etc. making the ecology unsustainable. With heightened human-wildlife conflicts and land use change, the potential of reviving a sustainable means of tourism lies in the hands of tribal youth.

Andre. B (1986) discusses the concept of tribe in India and defines the nature of tribal folk as a historic discourse on colonization and rule. [6] Before delving into the problems in forested landscapes, it is essential to clearly define what constitutes a tribal narrative and a tribal identity. The government of India has enlisted scheduled tribes, but the inaccess to amenities and incentives amidst tribals is still a grave matter of concern. With their lack of knowhow around regional politics, their local biogeographies not matching state boundaries, and their dialect merging interstate linguistics that are more oral histories than documented in a particular script. Folklores are their only sense of belongingness beyond the nationalization of their identity that the governments are keen on. More-so, their own cultural identity and relation with nature is what they care about.

Julian Haynes S. (2006) lists out the fundamental concept and method of cultural ecology with anthropology as premise. [52] While studying tribes, we often miss out on their voice, with researcher bias and / or the agenda of a granting agency alongside institutional interest in associating with the discourse on what constitutes tribal identity. Anthropology seems to be the nearest methodology that one can adopt in trying to give written word to the feelings, experiences and thoughts of tribals alongside the agency of their community in acting-out to external stressors.

Sujata M (2013) explains the tribal worldviews from an Indian standpoint of colonization and resettlement of displaced folk. [31] Tribals have borne the most brunt of rehabilitation due to displacement. They've been marginalized to the most extent possible, with menial returns for them being forced out of their homelands in the hope of unfulfilled promises till date. And the mindset of displacing aboriginals has been borrowed from pre-independence and is still a lived reality for many hamlets in the name of scientific forestry, conservation, trade of forest resources etc. The commodification and privatization of forest derived natural

resources such as water, hydropower and irrigation to name a few around rights over rivers for example.

It is thus crucial that we embed a strong sense of entitlement over the sustainable management of hydel catchments and streams for example, by the tribes in accordance with customary practices followed by their ancestors. This ecological wisdom must be preserved through learning in schools that impart education not just to tribal children, but students across a mixed strata of castes and class at different state-led geographies of concern. This would ensure reappropriation of use-rights and respect towards their cultural origin by non-natives, thereby truly including them in our socio-economies and policy-making strategies.

Problem Statement and Hypotheses

It is important to reappropriate ancestral knowhow of the land as learning material for tribal students to gain perspective on the ways of their forefathers. This ancient wisdom is lost due to vulnerability faced by minorities such as the scheduled tribes, in the world and in India specifically. To re-anchor the youth with traditional knowledge builds resilience amidst tribes in the face of dislocation and migration.

Lisa K.N. (2006) discusses art and ethnography at a school for native americans. [40] The research method of auto-ethnography seems to most closely describe the lived reality of native folk. Aboriginal histories with linguistic barriers could be explicitly depicted in the form of art works by the tribal populace. Thus in a school setting of mixed cultural backgrounds, art and craft seems to have potential value in not just cultural expression, but also in re-equipping skill sets of entrepreneurship linked to the handicraft industry of eco-tourism.

Sabyasachi B in his ‘Education and the disprivileged: Nineteenth and twentieth century India’ (2002) talks about including minorities in a learning style unique to Indian culture. [4] Ecological tourism has been a potent avenue for both castes and tribes to reap benefits from. Especially linked to underprivileged minority groups who narrate unique oral histories that make the idea of romanticized elite a rewarding experience for the upper classes of society. The hypothesis here is that with art, and a sensibility towards the environment - a rekindling of sustainable living could create a new market of saleable handicrafts that have a make-local trademark and the benefits be directly disbursed to the owners of such lithic knowledge and customary practice.

Aim of the Study

The aim of this research is to collate indigenous knowledge from parent-teacher-student interactions as a learning module towards designing environmentally sensitive and culture informed curricula for similar schools to follow. Another major objective is to design pedagogic approaches to teaching tribal students by equipping them with ancestral wisdom of their ecology and strengthening their cultural identity, so that their resilience to migration distress abates their struggles to gain access to amenities in a regional socio-politics of caste and class dynamic.

While Lisa K.N. (2006) discusses art as a medium for cultural expression and auto-ethnographic documentation of personal accounts, this methodology could be used in a setting with linguistic and cultural barriers. [40] Tribals have faced language constraints and art can thus help bridge any narrative they may wish to convey as their own basic needs to the larger society beyond their nestled hamlets of communities.

Annette H. (1994) positions Culturally Responsive Teaching as a means of cross-cultural dialogue in culture contextual learning environments. [19] Especially with migration, their need to communicate difficulties regarding unmet requirements due to social hierarchies - becomes important in culturally diverse societies. Equipping the tribes with skills of migrating resilience aids in protecting their rights over fundamental resource use and shelter, beside quality living and education. The research aims at bridging cultural divides in diverse socio-environs.

Research Objectives

Given the ecological and cultural contexts of the field area and community selected for the study, 'environmental science' as a subject suits the objectives of this research. With a place-based modality of engaging tribal kids with their ecosystem and social setting, the breadth of syllabus that can introduce resource conservation and cultural preservation - is apt for the selected age groups and societal backgrounds of children from tribal families. Middle and High school grades just prior to Secondary examinations is the ideal stage for consolidating holistic learning for the students. The subject offers immense scope to weave-in common understandings across disciplines and to link learnings that can integrate into applied thought. For example, the atmospheric physics of climate change and the geographical processes on Earth relate to global warming - and this common-ground is essential to arrive at solution-building capacities in young minds.

Ramdas R. (2016) explores tribal education as a perspective from South Asia and adds to the lineage of built identity via learning. [46] The National Education Policy (2020) has detailed the ‘Promotion of Indian Languages, Arts and Culture’ as a part of the Ministry of Human Resources Department - Govt. Of India initiative at the policy level to include tribal ecologies and societal expression of their histories and cultures. [38]

The objectives of this research are

- To design an environmental science based learning module for tribal students to be sensitized to their culture and ecology.
- To put-in-place a holistic training module for building cultural and ecological contexts, in teachers - of both tribal and non-tribal backgrounds - who engage with the learning processes amidst tribal children.

Environmental awareness can highlight the unique connectedness experienced collaboratively by people of tribal identities, thus cohesively bonding socio-cultural norms as a response to resource dependency and replenishment. Without such engagement with one's surroundings, future generations may lose their sense of community, detaching themselves from associating with a collective identity that no longer serves them well.

The inclusion of culturally responsive pedagogical approaches while catering to tribal learning can:

● Position tribal children in a familiar context - framed by a baseline understanding of their interactions with the immediate environment and social setting

● Empower youth in informed choices pertaining to livelihoods dependent on locally available natural capital 8

● Offer the tribal community an inter-generational chance towards continuity in preserving traditional wisdom

The theoretical framework in identifying and engaging with learning for tribal students offers that a cultural context be planned and implemented via a working pedagogy that caters to the realms of collective ecosystem consciousness, collaborative decision-making and community-centered owning of responsibility towards safeguarding one's environment. A curriculum that ties cultural identity with ecological principles shall equip the youth in sustainable livelihood choices.

The theory suggests training in entrepreneurship skills across sectors such as tourism and hospitality to directly benefit the next generations of tribal societies that are constantly dislocated from their cultural roots and ecocentric values. It focuses on handicrafts as a venture to reclaim lost identity and to build a responsive relation with the current conservation agendas and developmental paradigms. Their right to co-own, co-manage and co-dependently use natural resources can be restored only if they showcase, as a community - a capability, via education that is culturally sensitive and responsive to evolution and changes in resource availability verrus access, to be adaptive to and resilient to political and ecosystem dynamics.

Research Questions

The following meta-questions guide this research and steer the processes required for the researcher to engage with and evolve a mechanism that contextualizes tribal learning:

● How can the process of drafting a working pedagogy for tribal education be inclusive of cultural diversity, and foster sustainable livelihood choices in young minds of tribes?

● What mechanisms in engaging with learning amidst children of indigenous origin, anchor and equip forest-dependent communities in their relation with land and resources?

● How does this modality of curricular intervention for the tribal ensure collective and effective management of common pool resources into their future generations?

With these questions, the aim and objectives of this research validate its relevance and need in the selected site of study. A comparative discourse on tribal to semi-urban impact of implementing such study modules is envisaged.

Structure of Thesis

The thesis explores therapy for teachers through workshops and training by the selected schools. It further suggests that art and environmental education are the tenets of tribal schooling where cultural and linguistic barriers are possible. Lastly it attempts to design and

develop a working pedagogy that can be applied across state and national boundaries in context to ecology and socio-cultural relevance.
The structure is designed to cover an annual curricular planning and implementation at a school in the remote villages of an interstate geography depicting confluence of languages and shared cultures. It further attempts at remodeling a similar approach to test the same at a peri-urban school setting with richer diversity in culture and languages.
The structure finally distills through this comparison of locals in their native habitus versus semi-urban migrants void of a familiar natural space to explore the challenges of learning across a strata of environs.

Brief Description of Literature Review

Srisha P's (1991) work on tribal education in India discusses a case study of Orissa and explores yet another powerful narrative on tribal identity in the Indian subcontinent in context to learning amidst tribal students. [41] Pamela J.M. (2009) discourses multi-lingual schooling among the tribal communities in India and stresses on mother-tongue being an important factor in overall child development. [29] Annette H (1994) discusses culturally responsive teaching with respect to cross cultural dialogues amidst students. [19] Mary Jiron B et al. (2002) enlist the means of situating culturally responsive programs for Indo-Americans. [5] Poranee N (1991) suggests the implementation of cultural ecology in environmental education through the application of behavioral sociology for embedding nature and culture in curricula that are contextual and relevant. [37] Hunt'D et al. (2007) positions auto ethnography as a means of inquiry with a researcher lens in evaluating indigenous peoples involvement in place-based learning communities as modalities of engagement. [11] Padma M.S. (2003) discusses questions posed by Baiga vidya as an effort towards indigenising curriculum for tribals. [48] Moses M (2016) focuses on traditional knowledge, cultural expressions and Intellectual Property Rights of Tribes in North-East India and explains that indigenous wisdom has the entrepreneurial capacity to seek rewards from expressing cultures as a part of the IPRs. [30] Mihin D et al. (2009) discusses environmentally sustainable traditional natural resource management and conservation in Ziro Valley, Arunachal Himalaya, India. [14] While Hunt'D et al. (2007) positions auto-ethnography as a means of inquiry, the same could be applied as a research methodology herein. [11] Sanjay K (2002) delves into participation in common pool resource management as social cost–benefit analysis of joint forest management in Jharkhand for the poor. [26] S. Rajathilagam and K. Kavitha (2018) discuss the changing dimensions of tribal markets at Kodaikanal with the advent of social media from an ecotourism lens. [44] Kathryn D et al. (2012) confirms a social learning across the life cycle of cultural knowledge acquisition during honey collection among the Jenu Kuruba tribes of India. [13] Anne DB et al. (2018) suggest entrepreneurship for the indigenous communities as resilient strategies to overcome vulnerability due to marginalization. [12] Regis M et al. (2016) position community-based natural resource management as a pretext to collective ownership of rights over the use of common-pool resources. The role of social capital in collaborative environmental management of tribal resources in South Africa situates India as

a country with tribal pockets and clusters to better manage their skewed access to and depleting resource pools more effectively as a combined effort with a bottom-up approach at grassroots level. [35]

Preliminary Field Surveys

The two selected sites of study include:

1. Anaikatti - Vidya Vanam Senior Secondary School dedicated to learning for native tribes of the Tamil Nadu - Kerala transect.
2. Rural Bangalore - Little Buddha Primary Gurukula, a bridge-school for migrant children that aren't necessarily tribal.

Prasanna K.S. et al. (2001) explore the problems and the prospects of educating a nomadic tribe and essentialize self-learning as a passing-on of indigenous wisdom rather than an external revalidation of identity. [47] The first school in the remote forests of Coimbatore and Palakad depicts this surreal kinship of learning from nature. As the researcher organised field trips, the subtle lived realities were witnessed at the tribal hamlet where lantana pickers carried and dried the worship sticks and twigs with their children. It was also observed on a festive day that drums of animal hide were beaten and kids from the honey-gathering tribe mimicked their parents while aiming slingshots at a beehive on a tall peepal tree in a village.

Pankaj D (2021) helps evaluate learning effectiveness amidst Child Labour, Seasonal Migration and School Exclusion. [10] The second school of study depicts how kids are estranged from native lived realities and have to cope amidst a competitive fast paced social terrain of scarce yet high paying waged labor for their parents. The gap years in academics, the inaccess to free education in a migrated state, and the unaffordability of high fee for non-residents was observed in this field site.

Angela M.J. et al. (2019) discuss tribal critical race theory as a means to inform classroom culture and practice. [22] The research hopes to extend this into the way cross-cultural dialogue occurs within a class setup amidst teachers not necessarily from tribal backgrounds. Hence a therapy of sorts is essential to the way in which they involve students in learning on a daily basis.

Shivani N. (2014) touches upon teachers' experience of using the language of the tribes in a classroom towards a collaborative exchange of knowledge between tutor and student. [36]

Another critical step is to acknowledge oral colloquial languages in written form and bring the spirit and essence of a student into the class environ of active and engaged participation.

Anaikatti - Tamil Nadu

Taking the field visits at the tribal school further, engaging teenagers in entrepreneurial skill development essentializes the pretext of a quality learning environment. Be it dialogues in buses while they apply to universities, or alumni discussions on institutional support - these meetings are crucial to enable learning to reach future avenues. Discourses on the relevance of a state-run art 'mela' or their own cultural event at their school, makes room for planning their careers in fields of NGO service, art exhibitions, eco-tourism etc.

Anne DB et al. (2018) suggest entrepreneurship for the indigenous communities as resilient strategies to overcome vulnerability due to marginalization. [12] This was evident as a responsive resilience strategy in the field site having a huge ecotourism potential. The thematic annual exhibit cum drama show entailed seniors working with juniors in understanding coordination of an event at such a scale. They were led through term two of designing the ‘santhe’ festival on fabric and fashion.

Rampura - Bengaluru

The preliminary observation at Little Buddha (Primary) Gurukula Academy revealed that a Nature Classrooms Framework developed by Seasons Watch, be tested for cultural relevance and suitably stitched into the curriculum and pedagogy of the semi-urban school having a mixed cohort of cultures.

Research Methodology

While auto-ethnography equips members of a clan to take ownership in narrating their intrinsic cultural identity, researcher-based anthropology helps create an outsider view of cultural richness that an internal narrative may lack. The issue here is to find a way to merge the external with the insider versions, so as to create a dialogue between the two - further enriching the meanings associated with being tribal.

Wahid Ahmad D. et al. (2018) position Educational Anthropology as a means to assess Tribal Education and Responsible Citizenship in India. [9] The methodological approach for this study would be a combination of:

● an anthropological perspective of the researcher's observations and interactions with tribal folks and their relations with people from non-tribal origins.

● an auto-ethnographic account documented directly from students, teachers, grand/parents and trainers of tribal descent - through their engagement with the learning module designed and implemented, based on their assessed needs and context.

This would build secular coherence on multiple commonalities of tribal cultural identity. This method of inquiry would further reveal shadows of non-tribal people in their subconscious bias in relating with tribal individuals. It would numb extraneous variables from dictating what they feel tribals deserve, or how much of rights tribes have in choosing their livelihoods to be dependent on natural capital of forested terrains.

The following research methods have been proposed towards completing this study:

● Resource mapping via in-depth interviews with key-informants on the ethnobotany of medicinal flora used by the community

● Building a curriculum that links forest-based resources to sustainable livelihoods, practiced by tribes - so as to develop a culturally contextual pedagogic approach to engage their children in education

● An ethnographic account of responsive adaptations by members to development and migration, re-interpreting tribal meanings associated with collective management of natural capital - tied through the year-long syllabus of the learning center

Structure of Study Design

After preliminary data and survey it was found that there needed an equipping of sorts for teachers to deal with cultural divides in both school setups. While auto-ethnographies of students were restricted to arts, creative expression via dance, music and theatre, it was suggested that these skills be honed for a cultural event under the fabric and fashion theme linked to embroidery as an elective in twelfth grade. Girl students being more in number at certain age-groups, tailoring and measurements were linked to mathematics and home science as subjects in particular to the tribal school.

The methodology discussed by Wahid Ahmad D. et al. (2018) on Educational Anthropology could be applied as a part of this research to bring out the nuances of the teachers' experience of tribal learning. [9]

As for both schools, the researcher's voice was the prime narrative for an anthropological standpoint on teacher-student-parent interactions beside non-teaching staff relationships built over the study period.

Design of Data Analyses

In one paper published, quantitative data has been reported regarding the tribal school. As for ethnographic works, the field reports narrated interpretations of group tasks during teacher training programs as well as comprehensions of art works submitted under a theme - moon drawings as a part of ISRO's interschool challenge and competition.

Leslie E.S. (1987) stresses on the impact cultural ecology and environmental education have on conserving indigenous wisdoms and traditional practices. [51] As the thesis was sociological, many testimonies were used to interpret the qualitative efficacy of transfer of knowledge down generations. A strong bond with non-teaching staff also served well in bringing customary practices to a light of rationale and scientific temper.

Tsianina LK et al. (2006) discuss democracy in schooling in the context of Native American Education. [27] We did follow a child-centered approach and saw to it that the child's voice was primary in every discussion.

Summary of Methods

This study has applied auto-ethnography via art and educational anthropology to collate perspectives of students and teachers of what constitutes tribal ecology. It further uses environmental science as a subject to build a curriculum that is integrative to their culture and natural habitat.

Angelina C et al. (2007) discuss tribal critical race theory and the interest convergence principle in identifying tribal descent. [8] Terry H. (2020a) also positions Transculturation Theory as a framework for understanding tribal identity and academic success. [21] Terry H. (2013) also discusses the perceptions of Native American educators on cultural identity and tribal cultural education as an application of transculturation theory. [20] Melissa Rae G. (2017) discusses critical race theory in India as an analysis of social identities and

discrimination in Indian schooling. [17] Jeanette Haynes W. (2008) explores critical race theory, tribal critical race theory and multicultural education towards an intercultural dialogue. [55]

Results

The anthropological views of the researcher are collated as lived experience of the observer in the socio-natural setting of the observed. It is through phases and seasons that these observations have been reported as a semi-fictional response to the confidentiality of the subjects concerned.

The auto-ethnographies of teachers have been attached as testimonies in the annexure, and those of students are drawings and images -also therein, of their participation in programs held at both sites of study during the period of research.

Through teacher trainings it was brought to light their need to understand minority views and vulnerability due to marginalisation. Therapies in pairs and groups revealed distress levels faced by teachers in handling peer dynamics with students and colleagues.

It was further disclosed during student engagement at fairs / carnivals and in competitions that the student voice and perspective had to be central to an inclusive education model. Their eagerness to express is a means of cultural preservation, and their curiosity in inquiry promotes the retaining of natural wisdom.

At both schools the fundamental exploration of lived space in their immediate surroundings was brought-forth in their engagement with cultural validation of identity and sense of belongingness amidst the natural environment of flora, fauna, air, water and soil.

Discussion

Beyond the scope of planning and executing a learning module of cultural relevance and ecological context, the comparison across a tribal to semi-urban environment served in justifying the significance of environmental education for schools. It was also suggested that art as a medium can surpass language barriers in helping children of diverse cultures engage in a learning beyond linguistic limitations.

Ishwar C.P (2005) discusses biodiversity as a resource material for educating the indigenous communities of India. [43] Even in a city setting, the urban-greens are sufficient landscapes to explore environmental science and arts as a naturescape of urban parks and water bodies. More importantly it was signified through this research that training to teachers, time-scheduling for kids to be steered into extracurricular, and developing a strong pedagogy in terms of ecology of ethos - and principles of intercultural harmony and celebration - would serve well in designing the overall philosophy of a school.

Limitations of Study

The study couldn’t factor in climate informed curricula nor could it include climate resilience in the daily operations such as biogas as a clean fuel, cow dung in cooking, solar heating and rainwater harvesting that other schools follow.

Kyle Powys W. (2013) includes climate adaptation and responsibility in tribal populace. [54] However the study couldn't examine climate change vulnerability and responsive mechanisms in this regard.
While V. Keerthana et al. (2019) suggest a study on sustainable livelihood for tribals with access to natural capital as a factor in tribal resilience, this study could not assess this component of resilient societies due to qualitative constraints. [24] Though touched upon descriptively, a quantitative measure was difficult to arrive at resilience within communities.

Conclusion

The research concludes with findings that environmental science is a holistic and integrative subject that bridges disciplinary and theoretical understanding of nature and ecology into a practical and transdisciplinary way. And that art therapy and art engaged classes could facilitate cultural dialogue with a language constraint, both amongst teachers and students - in ways that sensitize the school with secularism and regards for the environment and society.
Lesley T. et al. (2007) suggests a conceptual framework for embedding the development of intercultural competence in business education. [53] Here too, across cultures we could bring out rich commonalities by setting our differences aside as a schooling community. Involving parents in decisions regarding hosting art exhibits and cultural fairs can build faith in parenting and learning for their children.
Colleen M.F. (2017) emphasises language vitality and its reclamation as a factor of community resilience in the face of language endangerment and 'loss'. [16] Tribal linguistics exists in an unscripted mode, thus there is eminent need to preserve the language, associated culture and respect towards nature.
Vikram S. (2016) explains the promotion of sustainable livelihood through skill development among rural youth, discussing the role of microfinance in a developmental paradigm of ecological enterprise. [49] Eco-tourism as a potential sector is where tribal youth could seek rewards with a mindset of entrepreneurship and enterprise, building informal sectors like handicrafts, honey and spice markets etc.

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Appendices

Stakeholder Engagement Plan

Stakeholders involved	Intervention methods	Possible outcomes

Kids of aboriginal descent	Classroom interactions	Documenting rich knowledge passed-down generations, with a focus on environmental awareness and social norms
Teachers from tribal backgrounds	Teacher training programmes, workshops and pedagogy re-design courses to include cultural contextualisation	Sensitizing teachers to the need for reviving sustainable livelihoods and resource management strategies into the curriculum for learning
Teachers from non-tribal backgrounds		Building empathy in linking parental and adolescent needs in light of preserving traditions amidst orientation to globalized living
Parents of indigenous children	Participatory Rural Appraisal, Focused Groups	Discoursing cultural confluence of beliefs and values linked to customary use of nature-derived medicine, being diluted with modernisation
NGO staff - field guides and teacher trainers	Designing training modules for target audience and purposive intervention implementation	● Techniques to engage varied stakeholder needs towards successful integration of cultural context with the development agenda ● Linking sustainable livelihoods and community based natural resource management to curriculum development at tribal schools ● Designing a community engagement model for the vocational training programmes at learning centers for the indigenous people

Questionnaire

Questionnaire Purpose of the survey: ---------- to collect preliminary information on cultural practices of tribes, associated with their relations with nature, specific to medicinal flora Name of the ethnic Community: Jenu kuruba Location: villages in the vicinities of Nagarhole National Park and Aralam Wildlife Sanctuary	Knowledge of Nature (wilderness) 1. Species Interactions (threat versus use-value) 2. Health benefits vs. Resources as a means of earning 3. Cultural practices, religious beliefs etc	Shifting means of living - migration, development and facilities towards secured wages in urbanized settings What is the community's perspective on continuing traditional legacies of wilderness living? Vs. Enhancing standards, switching livelihoods and adapting to the state's development agenda. Reasons for choice between traditional modes of sustenance vs. Modern avenues of growth and enhanced standards of living What factors (extrinsic vs. Intrinsic) enable decisions regarding formalized skill-ups to serve rural and urban job-markets vs. Staying rooted in culture and tradition of ancestry?
Name of the informant: Sex & Age: Marital Status: Village of Residence: Region of Ancestry: Languages spoken: Years in honey collection (descriptive):	Ethnobotany as a lens to ecosystem services (plant-centric) ● e.g. In the case of honey collectors, what efforts in conserving wild flora that the bees visit or nest on, are in place by the community?	Community effort in reviving indigenous skills and information, disseminated down generations Role of eco-tourism in replenishing a reunite with Natural resource use vs. Individual embedded in societal progress within the paradigm of globalization Association with Sacred groves

Allied sources of income (detailed):	● What is the awareness level of species regeneration, ecological aspects relating to plant-interdependencies (if any)?	● What customs drive faith in preserving sites of pristine origin? ● How has the meaning of, or definition ascribed to - the upkeep of a sacred grove, changed with time?
Wisdom associated with livelihood(s) ● What is the nature of skills acquired from the means of earning through dependency on natural resources?	(Human-centered) Concepts of Sustainable Harvesting ● What practices direct the tribe to respectful use of nature's reserves? ● How are the practices effective / dysfunctional in current times of forest fragmentation and encroachment?	Education centric understanding of baseline learning levels and modalities in the existing tribal schools ● Environmental awareness ● Cultural values and beliefs ● Sense of community vs. Individual aspirations

Nature Classrooms Tenets suggested by the research

Environmental Sensitivity	Contextual To Pedagogy	Cultural relevance	Learner specific
Adaptable	Age integrative	Practical / Applied	Explorative
Sensitive to varied views	Scalable	Inclusive of cross-cultures	Health conscious

Nature-centric
Shifting from a utilitarian, human-centric perspective of nature to one that views humans, along with other beings as a part of the natural world.
Contextual
Drawing upon familiar local examples to encourage students to bond with their immediate environment, and then progressing towards new content.
Culturally Relevant
Providing opportunities to acknowledge aspects of local culture and beliefs within classroom learning.
Student-centric
Allowing for students to engage, explore and make choices about their learning and interactions in and about the natural world.
Age-appropriate
Carefully designed in accordance to children's learning levels, cognitive skills and socio-emotional needs.
Experiential
Immersive and reflective learning through the hands, head and heart.
Inquiry-based
Sparking students' curiosity about the natural world and their surroundings by asking questions, encouraging observation and investigation.
Empathetic
Building and valuing emotional connections, and a compassionate outlook towards the natural world.
Inclusive and accessible
Representative and non-discriminatory teaching and learning.
Well-being focussed
Creating a sense of wonder and connection to nature among students, and being mindful of the impact of climate-related topics on their mental health.

Source: Seasons Watch

Syllabus

Subjects	Perspectives as skill-building and exploring knowledge	Outcomes as progress in learning
Language and Literature	Folklore, Oral stories, Plays and Community Narratives	Cultural specificities pertaining to belongingness, identity, indigenous wisdom and acknowledgement of ways and efforts of forefathers / ancestry
Social Sciences (civics)	Folktales, Beliefs, Customs, Oral History, Communal Norms, Biogeography and resources	
Math and Phy	Measurement units existing alongside traditional trading practices and Familiarity with equipment used / phenomena observed in day-to-day living	Skillsets relevant to measuring land and commodities, relating to physicality of experiential learning
Chemistry and Biology	Environmental chemistry and ecological biodiversity as basis for exploring concepts - nature-centric learning	Nature of natural resources, renewability vs. awareness on depletion, community conservation interventions

Financial and Computer literacy	Markets of trade, Apps and Use of internet to avail schemes / incentives, Form submission awareness etc	Sustainable livelihoods and entrepreneurial initiatives towards building-on natural capital management
	Arts, crafts and play Body mindfulness, cultural expression and sustainable art, livelihood links to skills as forms of art	Art therapy, healing from cultural shifts, co-ownership of land and resources